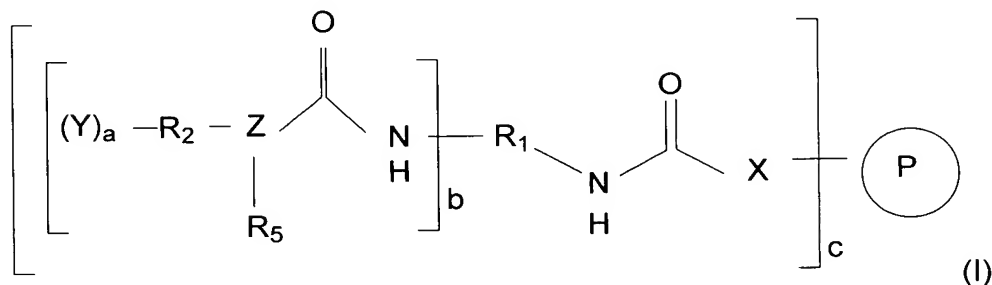
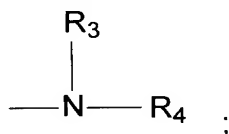


ABSTRACT

Catalysts useful for low-cure powder coating compositions are disclosed, having the structure (I):



wherein R_1 is an organic radical having 6 to 25 carbon atoms; each R_2 is independently a multivalent hydrocarbon group having 1 to 20 carbon atoms; Y is



each R_3 and R_4 are independently alkyl or aryl groups having 1 to 12 carbon atoms; each Z is independently oxygen or nitrogen; R_5 is absent when Z is oxygen and R_5 is hydrogen, an alkyl or aryl group having 1 to 20 carbon atoms, or $(Y)_a - R_2 -$ when Z is nitrogen; a , b , and c are integers; each X is independently S, O, or N(R_6); each R_6 is independently hydrogen or an alkyl or aryl group having 1 to 12 carbon atoms; and P is a polymeric material.